

Electronic Supplementary Material of

Do good things come in small packages? Bottle size effects on willingness to pay for pomegranate wine and grape wine

A Additional tables/figures

Table A1: Random effects ordered logit models of hedonic evaluations with additional demographics

	Pomegranate wine	Grape wine	Pooled model with clustered standard errors
Pomegranate: 500ml, Grape: 500ml	0.432 (0.770)	-0.464 (0.563)	0.178 (0.250)
Pomegranate: 500ml, Grape: 750ml	0.648 (0.749)	0.042 (0.547)	0.333 (0.258)
Pomegranate: 750ml, Grape: 500ml	0.191 (0.792)	0.262 (0.580)	0.135 (0.262)
Sensory treatment	-0.377* (0.220)	0.827*** (0.225)	-0.191 (0.220)
Information treatment	0.892*** (0.226)	1.433*** (0.236)	0.424** (0.209)
Grape wine			0.710*** (0.274)
(Pomegranate: 500ml, Grape: 500ml) × Grape wine			-0.275 (0.303)
(Pomegranate: 500ml, Grape: 750ml) × Grape wine			-0.277 (0.291)
(Pomegranate: 750ml, Grape: 500ml) × Grape wine			0.066 (0.321)
Sensory treatment × Grape wine			0.711*** (0.267)
Information treatment × Grape wine			0.471* (0.245)
Gender	-0.956* (0.570)	-1.220*** (0.421)	-0.592*** (0.154)
Age	0.069** (0.030)	0.036 (0.022)	0.025*** (0.009)

Body Mass Index	0.007 (0.065)	0.007 (0.048)	-0.002 (0.020)
Education: University student	0.468 (0.931)	-0.338 (0.677)	0.041 (0.236)
Education: University graduate	0.481 (0.672)	0.223 (0.492)	0.192 (0.168)
Education: Post-grad student or higher	1.261 (1.013)	0.906 (0.748)	0.554* (0.315)
Household size	-0.570** (0.229)	-0.171 (0.166)	-0.157*** (0.058)
Income: Above average	0.862 (0.882)	-0.118 (0.643)	0.066 (0.233)
Income: Average	0.522 (0.834)	-0.248 (0.612)	-0.024 (0.232)
Income: Below average	0.386 (1.000)	-0.096 (0.732)	0.040 (0.314)
Smoking: No	0.240 (0.595)	0.719 (0.438)	0.306* (0.163)
Smoking: I've quit	-1.006 (1.230)	0.121 (0.907)	-0.202 (0.285)
Alcohol consumption: 2 or 3 times per week	-1.308* (0.757)	0.681 (0.556)	-0.136 (0.240)
Alcohol consumption: 4 times a week or more often	-0.825 (1.035)	1.109 (0.762)	0.162 (0.326)
N of drinks in a day: 3 or 4	0.130 (0.713)	0.294 (0.526)	0.096 (0.197)
Wine consumption: Once a week	0.227 (1.067)	-0.327 (0.779)	-0.058 (0.295)
Wine consumption: Twice a week	0.629 (1.076)	-1.380* (0.790)	-0.266 (0.316)
Wine consumption: 3-4 times a week	1.476 (1.154)	-0.746 (0.844)	0.147 (0.342)
Wine consumption: (almost) daily	1.012 (1.399)	-1.093 (1.023)	-0.102 (0.427)
σ_u^2	9.110*** (1.611)	4.240*** (0.858)	
Observations	468	468	936
Log-likelihood	-756.887	-679.880	-1634.131

Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Base categories are: (Pomegranate: 750ml, Grape: 750ml), Visual treatment, Education: up to senior hi-school, Income: Good or very good, Smoking: Yes, Alcohol consumption: 2 or 4 times per month, N of drinks in a day: 1 or 2, Wine consumption: Once every 15 days.

Table A2: Multinomial logit model for pairwise comparisons with additional demographics

	Choose wine	grape Like both wines equally well	No choice
Constant	0.081 (1.277)	-1.303 (1.724)	-2.378 (2.657)
Pomegranate: 500ml, Grape: 500ml	-0.893** (0.417)	0.099 (0.548)	0.798 (1.088)
Pomegranate: 500ml, Grape: 750ml	-0.051 (0.374)	0.425 (0.544)	0.318 (1.292)
Pomegranate: 750ml, Grape: 500ml	-0.346 (0.389)	0.148 (0.550)	-0.611 (1.432)
Sensory treatment	-0.610** (0.271)	-0.755** (0.322)	-0.013 (0.572)
Information treatment	-0.692** (0.277)	-0.444 (0.357)	-15.860*** (0.610)
Gender	0.388 (0.289)	-0.037 (0.368)	1.278* (0.703)
Age	-0.008 (0.015)	0.033* (0.018)	-0.016 (0.042)
Body Mass Index	0.015 (0.034)	-0.048 (0.039)	-0.103 (0.070)
Education: University student	-0.358 (0.441)	0.357 (0.613)	2.112** (1.052)
Education: University graduate	-0.036 (0.317)	-0.070 (0.462)	0.745 (0.664)
Education: Post-grad student or higher	-0.218 (0.470)	0.879 (0.753)	2.651* (1.464)
Household size	0.205* (0.113)	0.012 (0.149)	0.433 (0.370)
Income: Above average	-0.595 (0.444)	-0.302 (0.569)	-2.385 (1.653)
Income: Average	-0.199 (0.396)	-0.519 (0.554)	-0.623 (1.055)
Income: Below average	-0.495 (0.506)	0.297 (0.620)	0.449 (1.082)
Smoking: No	0.297 (0.278)	0.223 (0.394)	-0.057 (0.807)
Smoking: I've quit	0.650 (0.610)	-0.334 (0.828)	1.654 (1.870)
Alcohol consumption: 2 or 3 times per week	0.325 (0.397)	-0.028 (0.459)	0.074 (0.958)
Alcohol consumption: 4 times a week or more often	-0.233 (0.482)	0.549 (0.630)	-0.978 (1.311)

N of drinks in a day: 3 or 4	-0.133 (0.392)	-0.897** (0.455)	0.128 (0.759)
Wine consumption: Once a week	0.024 (0.546)	0.437 (0.672)	-0.881 (1.409)
Wine consumption: Twice a week	-0.106 (0.538)	0.177 (0.656)	0.801 (1.160)
Wine consumption: 3-4 times a week	-0.463 (0.567)	-0.177 (0.789)	1.493 (0.944)
Wine consumption: (almost) daily	0.122 (0.655)	0.094 (0.910)	-13.830*** (1.423)
Observations	468		
Log-likelihood	-465.926		

Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Base categories are: (Pomegranate: 750ml, Grape: 750ml), Visual treatment, Education: up to senior hi-school, Income: Good or very good, Smoking: Yes, Alcohol consumption: 2 or 4 times per month, N of drinks in a day: 1 or 2, Wine consumption: Once every 15 days.

Table A3: Random effects Tobit model (pomegranate wine) and random effects linear regression model (grape wine) with additional demographics

	Pomegranate wine				Grape wine
	$\frac{\partial E[Bid^* x]}{\partial x}$	$\frac{\partial E[Bid x]}{\partial x}$	$\frac{\partial E[Bid Bid>0,x]}{\partial x}$	$\frac{\partial Pr[Bid>0 x]}{\partial x}$	
Constant	15.565*** (4.403)				14.037*** (4.262)
Pomegranate: 500ml, Grape: 500ml	-0.792 (1.027)	-0.687 (0.890)	-0.563 (0.731)	-0.042 (0.055)	-1.567* (0.894)
Pomegranate: 500ml, Grape: 750ml	1.248 (1.017)	1.141 (0.927)	0.977 (0.795)	0.048 (0.041)	1.274 (0.884)
Pomegranate: 750ml, Grape: 500ml	-0.865 (1.042)	-0.749 (0.901)	-0.613 (0.738)	-0.046 (0.056)	-1.566* (0.910)
Sensory treatment	-0.248** (0.103)	-0.217** (0.090)	-0.181** (0.075)	-0.012** (0.005)	0.208* (0.113)
Information treatment	-0.030 (0.104)	-0.027 (0.092)	-0.022 (0.077)	-0.001 (0.005)	0.342*** (0.116)
Endowment	-2.450*** (0.756)	-2.155*** (0.666)	-1.794*** (0.562)	-0.119*** (0.039)	-1.873** (0.745)
Hedonic evaluation	0.730*** (0.046)	0.642*** (0.043)	0.535*** (0.042)	0.036*** (0.004)	0.614*** (0.056)
Gender	0.184 (0.473)	0.162 (0.416)	0.135 (0.346)	0.009 (0.023)	-0.117 (0.469)
Age	0.032 (0.026)	0.028 (0.023)	0.023 (0.019)	0.002 (0.001)	0.006 (0.026)
Body Mass Index	-0.113** (0.055)	-0.099** (0.048)	-0.082** (0.041)	-0.005** (0.003)	-0.080 (0.054)
Education: University student	-1.402* (0.776)	-1.206* (0.654)	-0.988* (0.533)	-0.076 (0.047)	-1.898** (0.762)
Education: University graduate	-0.486 (0.558)	-0.430 (0.494)	-0.359 (0.413)	-0.023 (0.026)	-0.679 (0.553)
Education: Post-grad student or higher	0.535 (0.848)	0.485 (0.772)	0.414 (0.663)	0.022 (0.033)	0.541 (0.840)
Household size	-0.459** (0.201)	-0.403** (0.177)	-0.336** (0.150)	-0.022** (0.010)	-0.323* (0.193)
Income: Above average	-0.108 (0.746)	-0.096 (0.663)	-0.080 (0.555)	-0.005 (0.035)	-0.006 (0.736)
Income: Average	-0.108 (0.709)	-0.096 (0.630)	-0.080 (0.528)	-0.005 (0.033)	0.503 (0.698)
Income: Below average	-0.779 (0.828)	-0.679 (0.721)	-0.560 (0.596)	-0.040 (0.043)	-0.846 (0.820)
Smoking: No	1.003** (0.509)	0.878** (0.445)	0.726** (0.370)	0.050* (0.027)	1.086** (0.498)
Smoking: I've quit	1.155 (1.038)	1.015 (0.933)	0.843 (0.790)	0.057 (0.046)	0.968 (1.026)

Alcohol consumption: 2 or 3 times per week	0.213 (0.638)	0.189 (0.566)	0.159 (0.475)	0.010 (0.030)	-0.194 (0.628)
Alcohol consumption: 4 times a week or more often	-0.858 (0.850)	-0.739 (0.729)	-0.608 (0.599)	-0.046 (0.046)	-0.408 (0.844)
N of drinks in a day: 3 or 4	0.964 (0.590)	0.861 (0.532)	0.726 (0.452)	0.043* (0.025)	0.705 (0.583)
Wine consumption: Once a week	-1.336 (0.988)	-1.186 (0.892)	-0.996 (0.767)	-0.061 (0.043)	-1.230 (0.932)
Wine consumption: Twice a week	-0.837 (0.990)	-0.753 (0.902)	-0.639 (0.778)	-0.036 (0.039)	-0.741 (0.928)
Wine consumption: 3-4 times a week	-0.924 (1.022)	-0.829 (0.927)	-0.702 (0.795)	-0.040 (0.042)	-1.163 (0.984)
Wine consumption: (almost) daily	-0.808 (1.198)	-0.727 (1.081)	-0.617 (0.923)	-0.034 (0.050)	-1.825 (1.168)
σ_u			1.653*** (0.336)		1.307*** (0.312)
σ_u			2.467*** (0.170)		2.466*** (0.167)
σ_v			1.536*** (0.032)		1.700*** (0.034)
Observations			1404		1404
Log-likelihood			-2757.412		-2983.997

Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Base categories are: (Pomegranate: 750ml, Grape: 750ml), Visual treatment, Education: up to senior hi-school, Income: Good or very good, Smoking: Yes, Alcohol consumption: 2 or 4 times per month, N of drinks in a day: 1 or 2, Wine consumption: Once every 15 days.

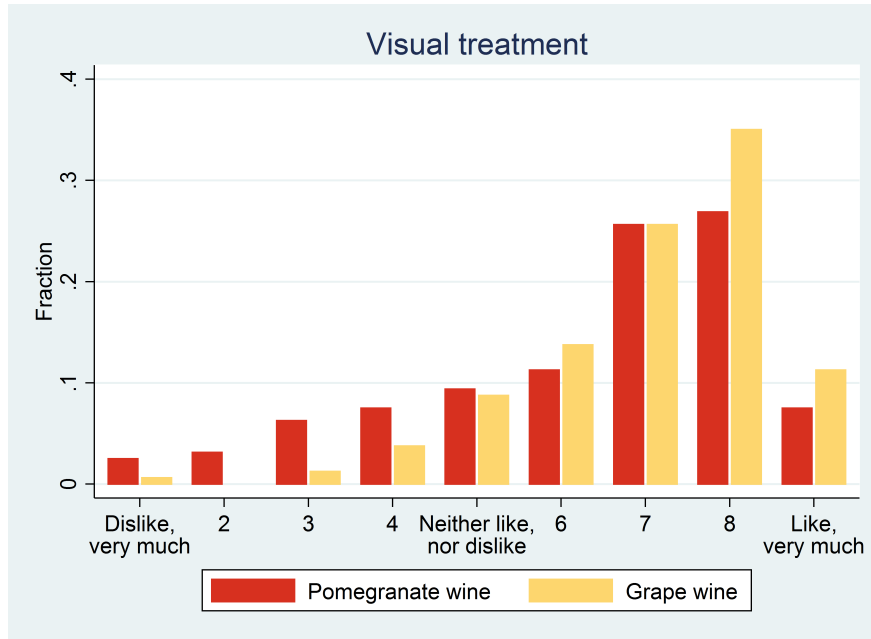


Figure A1: Hedonic evaluation scores (Visual treatment) by wine

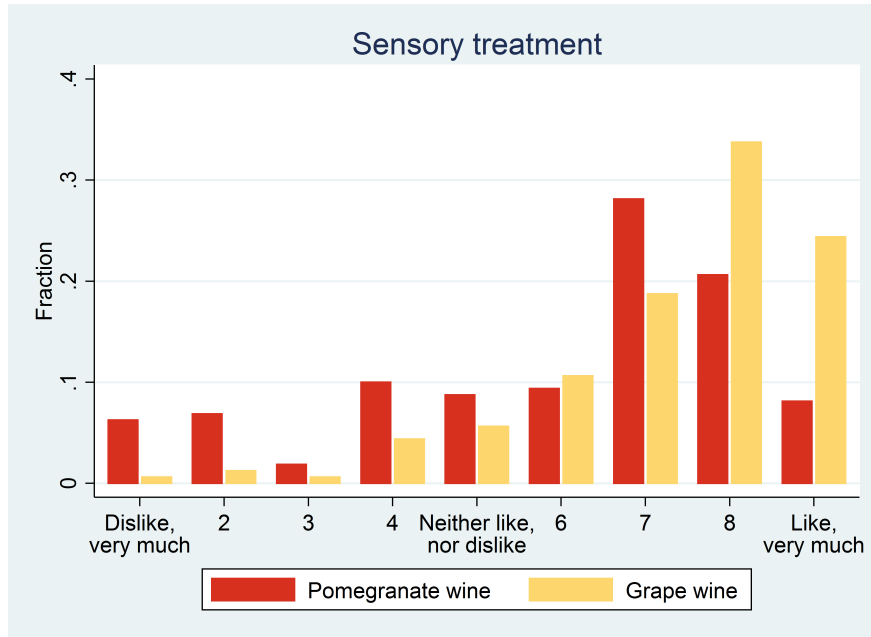


Figure A2: Hedonic evaluation scores (Sensory treatment) by wine

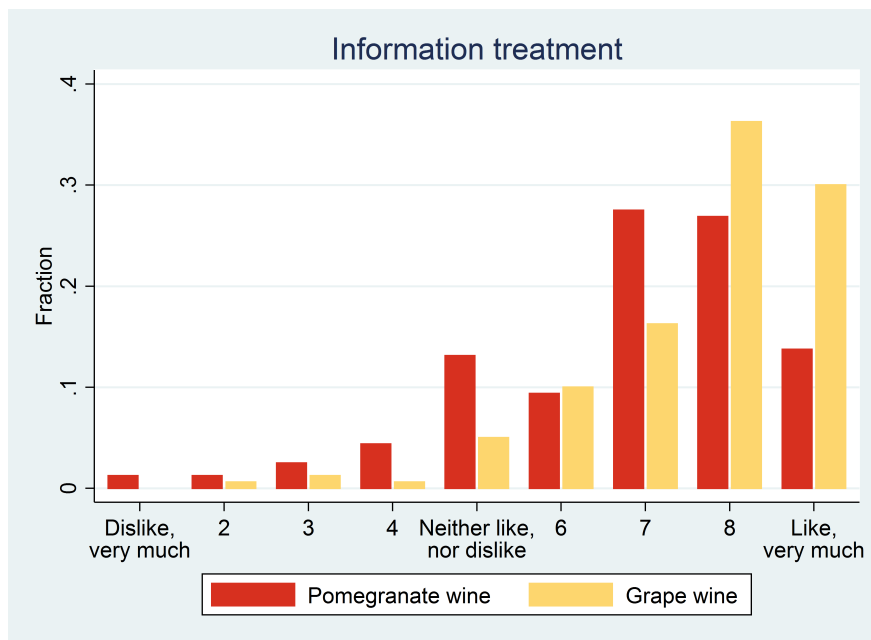


Figure A3: Hedonic evaluation scores (Information treatment) by wine

B Pictures and other experimental stimuli

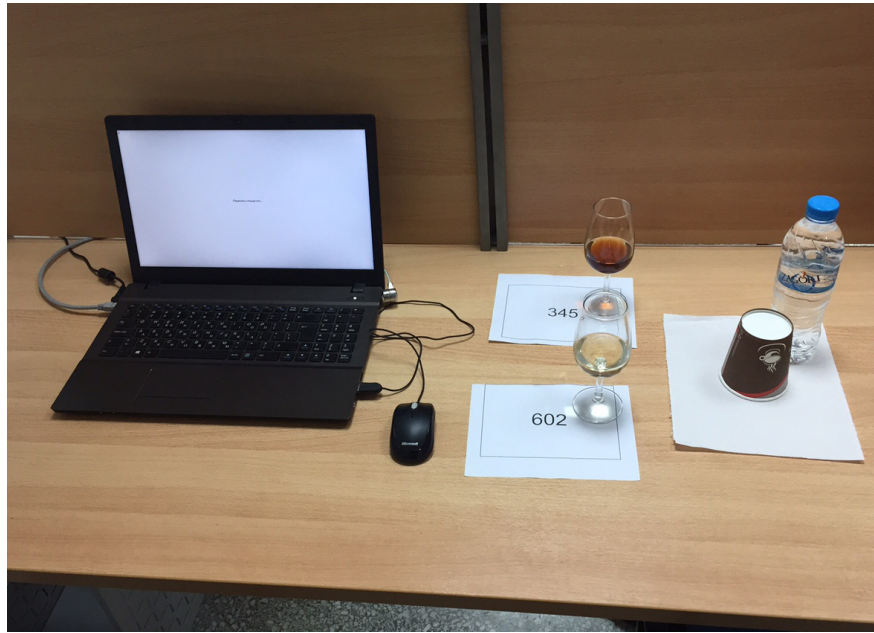


Figure B1: Private booth



(a) Chocolate



(b) Biscuits

Figure B2: Picture stimuli used in training auction rounds



(a) Pomegranate wine in 500 ml bottle (b) Grape wine in 500 ml bottle



(c) Pomegranate wine in 750 ml bottle (d) Grape wine in 750 ml bottle

Figure B3: Picture stimuli: Wines in different bottle sizes

C Experimental Instructions

Instructions

[This is a translation of the original instructions written in Greek]

Introduction

Welcome to our survey! It is very important **not to communicate with other participants**. Any attempt to communicate will result in the failure of this survey. The session today will last approximately 90 minutes.

In some parts of the survey you will interact with other participants. However, you will never know which participant you will be interacting with. In this sense, this survey will be anonymous. If you have any questions during the session, please raise your hand and the researcher in charge will answer your question.

The researcher in charge will answer all questions except questions that concern the way you should behave during the survey. The reason is that no one, including us, can tell you how you should behave. If we knew that we wouldn't have to conduct this survey today. All questions should be addressed to the researcher in private, not in public.

Before we start, I will ask each one of you to draw a three digit number from this cup. This number is unique for each one of you, as well as for all sessions we will be conducting. That is, this number is your ID since no other participant in this survey will have the same number as you. This is the number we will use to pay you.

There are no "right" or "wrong" decisions or answers in this survey. Nevertheless, your actual income will depend on your decisions and the decisions of other participants. Our advise is to pay attention to these instructions. Every participant receives €20 for their presence here today. For practical reasons, you will receive the money at the end of the session and will be added to your income as determined by the decisions you make.

Survey description

This survey consists of **three different stages**. In **stage one** you will be asked to give the correct answer in a task. In **stage two** you will participate in a series of auctions. In this stage you will also be asked to do sensory evaluations of two wine products. In **stage three** you will be asked to choose between different lotteries that can earn you extra money.

After completing stage three, a short questionnaire will follow and your payments will be delivered to you. After payment you will be free to leave the lab.

Stage 1: The counting task

In the first stage, all participants have to complete a task. The task consists of determining the right number of zeros in a matrix of 0's and 1's. The matrix size (that is, the number of rows and columns) will be the same for all periods and participants. The task will show up in your screens, similar to the example image below.

The screenshot shows a digital interface for a counting task. At the top right, there is a timer labeled "Χρόνος που απομένει [sec]:". Below it is a 4x4 grid of numbers:

0	0	1	0
1	0	0	1
0	0	1	1
0	0	1	1

Below the grid is a text input field with the label "Πόσα μηδενικά εμφανίζονται:" and a blue input box. To the right of the input box is a red button labeled "Καταχώρηση >>".

Each participant has 25 seconds to answer. After typing the number, the participant has to confirm their answer by pressing the button “Entry”. If a participant answers correctly in 25 seconds, s/he wins €0,5. In any other case s/he wins nothing. This stage will be **repeated ten times**. Therefore, if you answer correctly all the times, you can earn up to €5 on top of your participation fees.

Stage 2: The 2nd price auction

In Stage 2 you will participate in a type of auction known as 2nd price auction. This auction has 4 steps:

Step 1: I will describe the auctioned product.

Step 2: Each one of you will submit an offer to purchase the product.

Step 3: The computer will rank the offers from the highest to the lowest.

Step 4: The person with the highest offer purchases the product **but will pay the price of the second highest bidder**. If you do not submit the highest bid, you do not purchase the product.

Think about the following **example**:

Lets assume that 5 people bid for purchasing a USB memory stick (16 GB). Each person submits offers separately from other persons. Submitted bids are shown in the following table:

Person	Bid
1	15
2	12
3	20
4	18
5	13

After ranking bids from highest to lowest (this will be taken care of by the computer), we have:

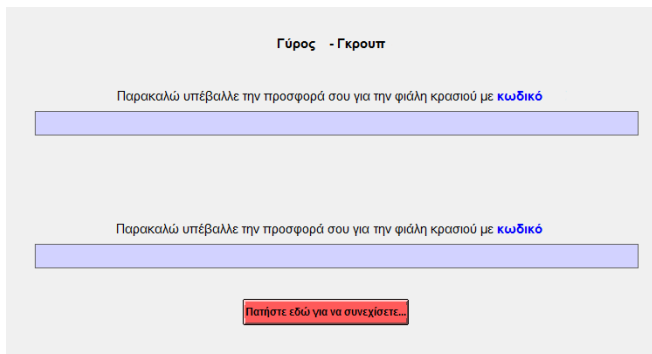
Person	Bid
3	20
4	18
1	15
5	13
2	12

Person 3 purchases the product because s/he bid the highest bid (20) but will pay 18 (second highest price). All other participants in the auction pay nothing and do not receive a USB memory stick.

In this type of auction, it is always in your best interest to bid exactly as much as the good is worth to you. **If you bid more** than the actual value the good is worth to you, the second highest price may be higher than what you are willing to pay. In addition, you don't profit **by bidding less** than your real willingness to pay because at the end you might not purchase the product, when in reality you would be willing to pay the second highest price.

Stage 2: The auction procedure

In the auction stage you will bid for two different products. These two products are two types of wine. For each type of wine you will separately submit a bid. An example of the screen you'll see, is shown below:



The screenshot shows a web interface for an auction. At the top, it says "Γύρος - Γκρουπ". Below that, there are two identical sections. Each section has the text "Παρακαλώ υπέβαλλε την προσφορά σου για την φιάλη κρασιού με κωδικό" followed by a blue rectangular input field. At the bottom of the interface, there is a red button with the text "Πατήστε εδώ για να συνεχίσετε".

In this auction **you will participate in groups of 5 people**. Each group is **independent** of the other and you will not know which person participates in each group. Even though you will bid simultaneously for the two different wines, at the end we will randomly choose one of the wines and only decisions you made about the chosen wine will be implemented. For the random choice we will use a bingo cage with 2 balls numbered with the numbers 1 and 2 which correspond to the two wines. The random draw will be done separately for each group.

Practically this means that if, for example, you are the highest bidder for Wine 1 but you are not the highest bidder for Wine 2 and Wine 2 is randomly chosen, then you do not purchase Wine 2. If, however, Wine 1 was randomly chosen, then you will have to purchase a bottle of Wine 1. That is, today from this session, you can purchase **at maximum** one bottle of wine and not more than one.

An example of the wine auction procedure can be described with the following steps:

Step 1: Each person submits a bid for each wine in separate input fields in their computer screen.

Step 2: The computer ranks bids from highest to lowest, separately for each wine.

Step 3: The second highest bid determines the price at which each wine will be sold to the highest bidder.

Step 4: The person with the highest bid purchases the wine (in the case where this wine is randomly chosen) at a price equal to the second highest bid. This price is deducted from overall money earned by the person. (Note: if there are more than one persons that are the highest bidders, the computer will randomly choose one of them.)

Step 5: Persons with bids lower or equal to the 2nd highest price do not purchase the wine.

Stage 2: The auction procedure (continued...)

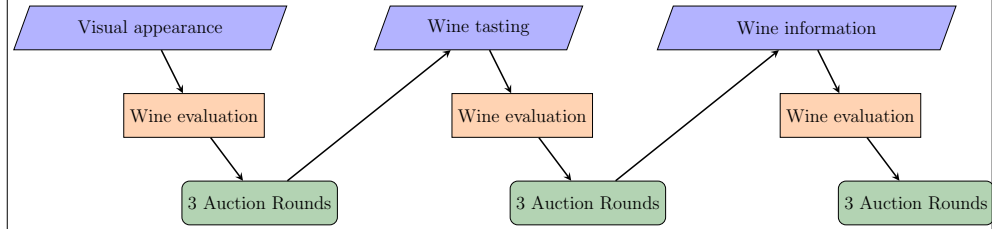
Before the auction you will be asked to evaluate both wines and choose between them.

In the **first phase** you'll evaluate the wines **with only information the visual appearance of wines**, served on a glass with a serving size of 40 ml. Please note that both wines at this phase will appear without any other distinct characteristic but will be distinguished by a code number only. After evaluating the wines, three auctions rounds will follow where in each round you will be asked to submit a bid for the wines.

In the **second phase** you'll evaluate the wines **after tasting them**. Instructions for tasting the wines will show up on your computer screen. Attention! The tasting phase is standardized and must be strictly followed. The computer will inform you which of the two wines you must taste each time and will provide detailed instructions for the tasting procedure. After evaluating the wines, three auction rounds will follow where in each round you will be asked to submit a bid for the wines

In the **third phase** you will be given **information for each type of wine**. Next, and after evaluating the wines for a third time, three auction rounds will follow where in each round you will be asked to submit a bid for the wines.

In total, the auction for the wines will be repeated for **9 rounds**. The sequence followed in Stage 2 is graphically depicted in the following flow chart:



Stage 2: The auction procedure (continued...)

After every auction round you will receive some feedback. The computer will inform you whether you were or not the highest bidder, as well as whether you submitted the same offer with another person in case you were the highest bidder.

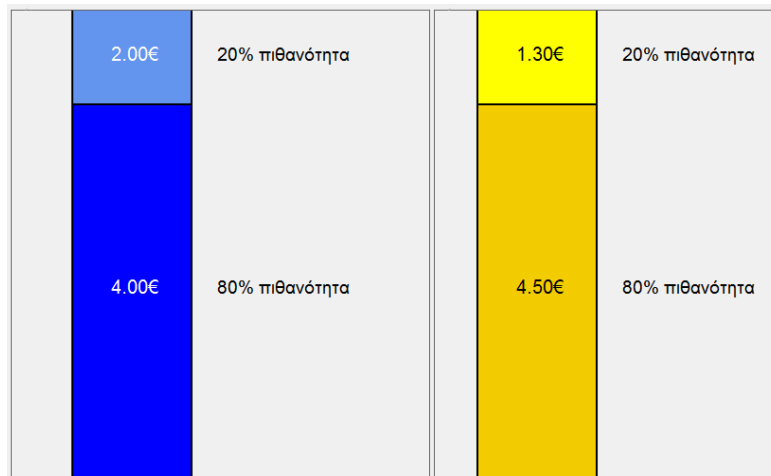
At the end of the Stage 3 (described momentarily) we will randomly choose one of the wines, using the method we described previously. In addition, we will choose one round out of the 9 auction rounds. The draw will be done in front of you, using a bingo cage. In the bingo cage there will be 9 balls numbered from 1 to 9. Then, we will draw one of the balls and the number of the ball will correspond to the chosen auction round. You will be informed about the chosen auction round only after you submit all your bids. Therefore, your best strategy is to think of every round as if it is the binding round.

Next, you will receive feedback about the outcome, that is, whether in that specific auction round you were the highest bidder or not, whether you'll purchase a wine or not, which wine you'll purchase and at what price.

Before **Stage 2** there will be 3 **trial** rounds in order to familiarize yourself with the auction procedure. The trial rounds will be about goods that do not exist in the laboratory and since these rounds will be trial, you can't buy the goods or pay money for the goods. **The purpose of the trial rounds is simply educational.**

Stage 3: Choice between lotteries

In this stage you will be successively shown a sequence of **20 choices**. For each choice there are **two alternatives** from which you can choose. Each alternative has two **monetary** amounts and a **probability** to win each amount of money. In each choice, the two alternatives will be presented at the left and right side of the screen. The following picture shows an example.



The left alternative of this example depicts two monetary amounts: €2 and €4. You can earn only one of these amounts of this alternative. The probability to earn each of these amounts is given as a percentage (out of 100%) on the right of each amount. The right alternative depicts two different monetary amounts: €1.30 and €4.50 and their respective probabilities.

Stage 3: Choice between lotteries (continued..)

Each monetary amount has a different color. Colors are used to make clear potential earnings from each alternative. In addition, alternatives are presented so that the lowest monetary amount is on the top and the highest monetary amount is on the bottom. Each choice differs from the previous and the next one with respect to **monetary amounts** or with respect to **probabilities** of monetary amounts. Your task is to choose the alternative you prefer the most.

As shown in the picture below, you have three options in order to state your preference. You can: a) choose the **left** alternative b) choose the **right** alternative and c) state that both alternatives are **indifferent**, that is, they are equally preferred. In the latter case, the computer will randomly pick one of the alternatives for you.

Μου είναι ΑΔΙΑΦΟΡΟ ποιες από τις ΔΥΟ εναλλακτικές να διαλέξω

Επέλεξε την ΑΡΙΣΤΕΡΗ εναλλακτική

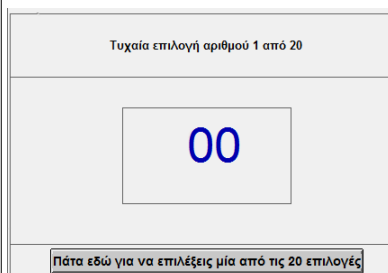
Επέλεξε την ΔΕΞΙΑ εναλλακτική

Επιβεβαίωση επιλογής

After choosing one of the three options (the respective button will be colored red as a confirmation of what you chose), you click on the confirmation button to move on to the next choice. In all, you will make **20** such **choices**.

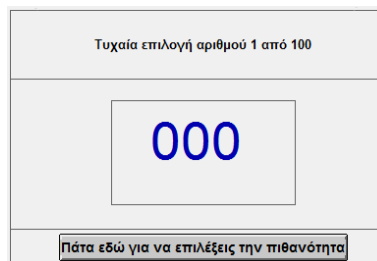
Given your choices in the lottery stage, you will receive extra earnings determined like this: When you are finished with the 20 choices, **we will randomly choose one of these choices** to be realized. The computer will then show you the chosen option and the alternative you chose and will give you feedback for your earnings. You will learn which choice will be realized only after you choose your preferred alternative for all 20 choices. Therefore, your best strategy is to think of every choice as if it is the binding choice that will count toward your earnings.

Stage 3: Earnings from the “Choice between lotteries” stage

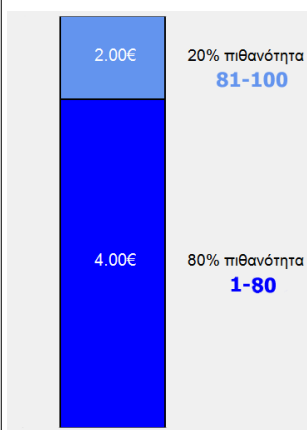


For drawing one of the 20 choices randomly, the computer will show you a window like the one shown on the left. In this window there will be **numbers changing from 1 to 20** very fast (about 1 number/second), which are selected by the computer randomly. By clicking on the button, the numbers will stop changing after a time delay of 1 to 3 seconds. This way, it is impossible to affect the draw of the number and therefore the choice of **one out of 20 choices is completely random**.

How will you get paid for the drawn choice? A window like the one shown on the right, will show **numbers changing from 1 to 100** very fast. These numbers are selected by the computer randomly. By clicking on the button, the numbers will stop changing after a time delay of 1 to 3 seconds. This way, it is impossible to affect the draw of the number and therefore the choice of **one out of 100 is completely random**.



The number drawn this way is **the chance to win one of the monetary amounts** of the alternative you chose in the randomly drawn choice. To make this clear, let's review an example shown in the picture on the left. The alternative shown pays the amount of €4 with probability 80% and the amount of €2 with probability 20%. If the drawn number is between 1 and 80 you will earn €4. If the drawn number is between 81 and 100 you will earn €2.



After completing Stage 3 you will be asked to fill in a questionnaire. In the meantime we will prepare your payments. Next, we will give you an envelope with your payment.

THANK YOY FOR PARTICIPATING IN OUR SURVEY!!